# Equivalent Fractions

*Mr. Merrick · Division 2 Mathematics · September 26, 2025*

Two fractions are *equivalent* (the same) if they represent the same fraction of a whole. We can make an equivalent fraction by multiplying (or dividing) the numerator and denominator by the *same* number. This changes how many equal pieces the whole is cut into, but not how much is shaded.

$$\frac{1}{2} \overset{\times 2}{=} \frac{2}{4}$$

$$\frac{6}{8} \overset{\div 2}{=} \frac{3}{4}$$

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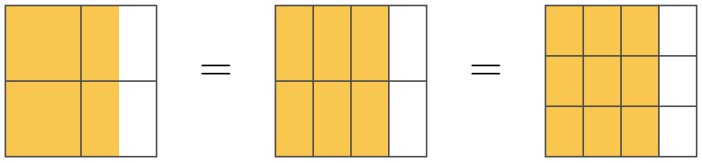
$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$

$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$

$$\frac{2}{5} = \frac{4}{10} = \frac{6}{15}$$

$$\frac{3}{4} = \frac{6}{8} = \frac{9}{12}$$



$$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

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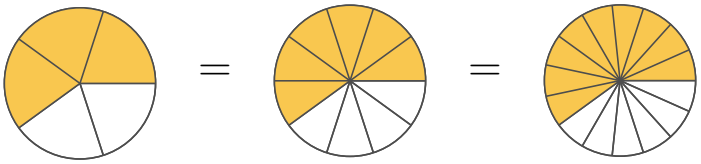
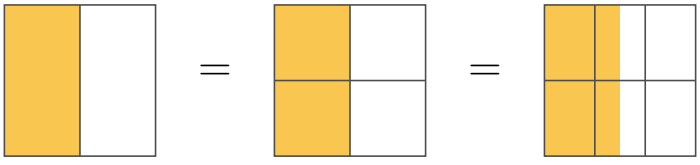
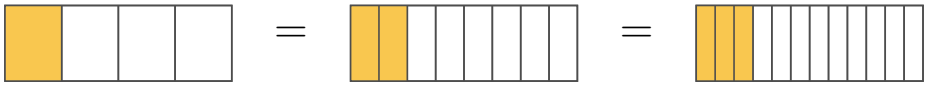


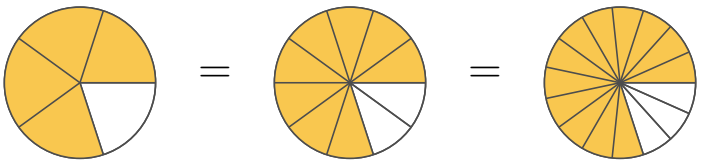
$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$



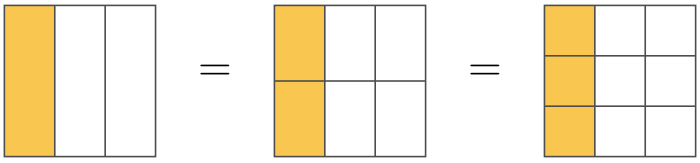
$$\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$$



$$\frac{4}{5} = \frac{8}{10} = \frac{12}{15}$$



$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$



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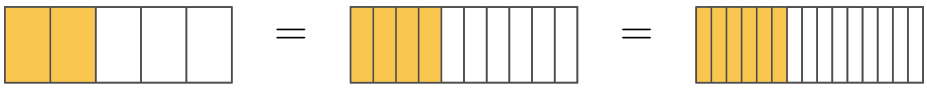

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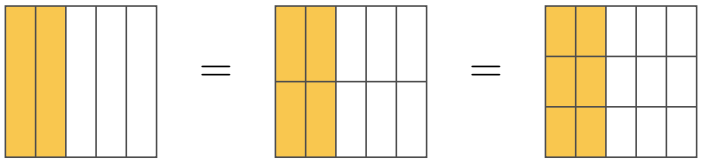
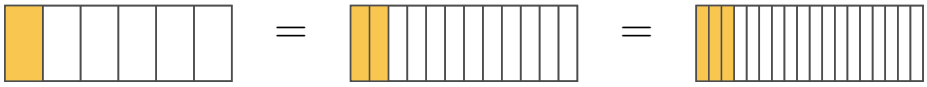
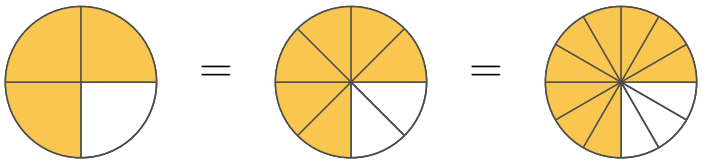


$$\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$$



$$\frac{3}{4} = \frac{6}{8} = \frac{9}{12}$$



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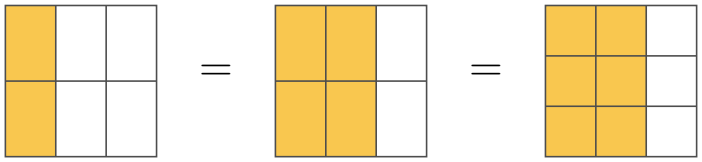
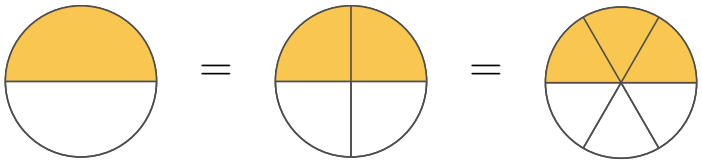
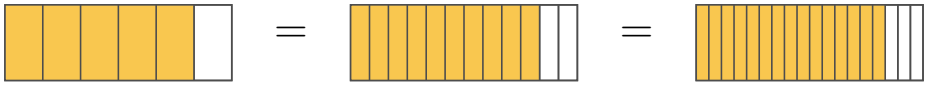


$$\frac{3}{5} = \frac{6}{10} = \frac{9}{15}$$

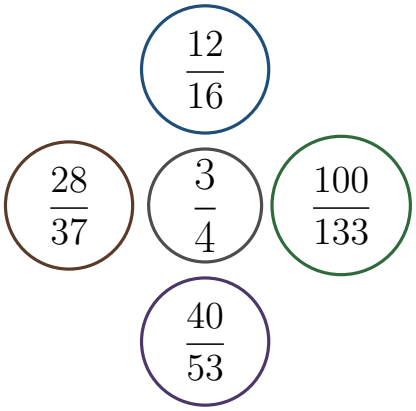
$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$

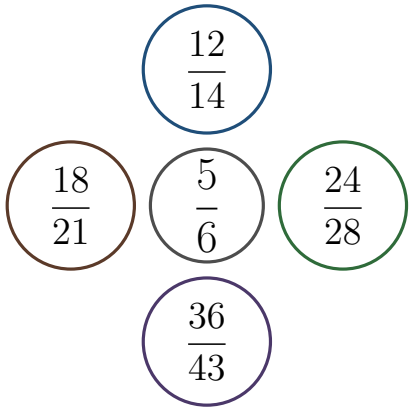


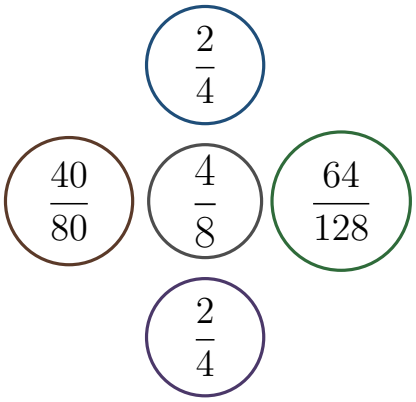
$$\frac{5}{6} = \frac{10}{12} = \frac{15}{18}$$

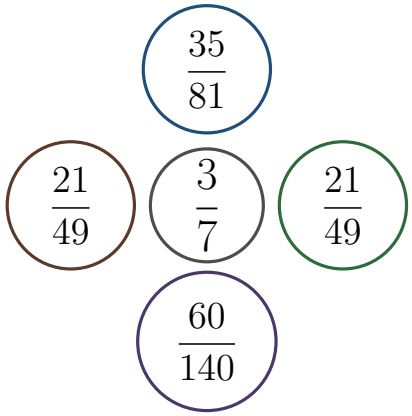


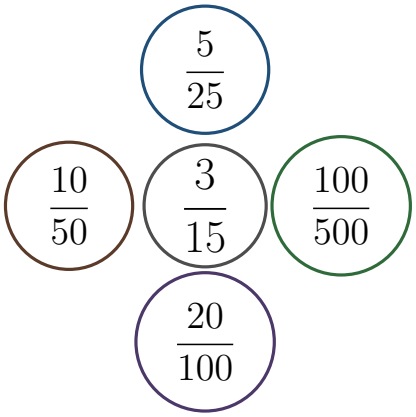
# Equivalent Fractions — More Practice (A)

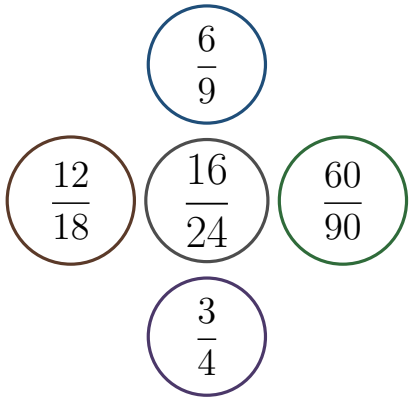


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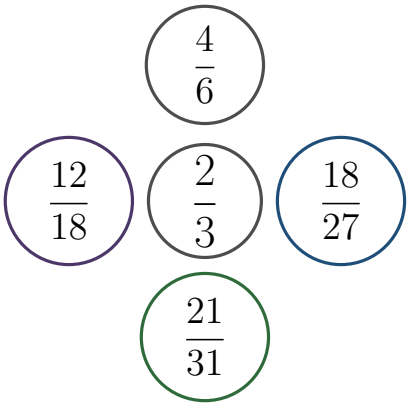
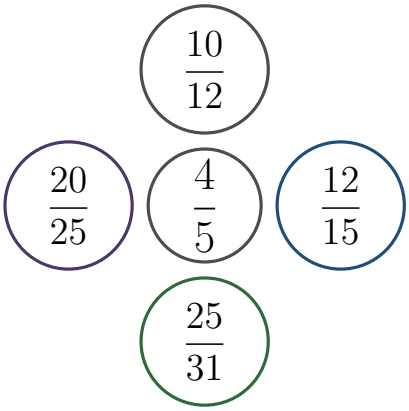
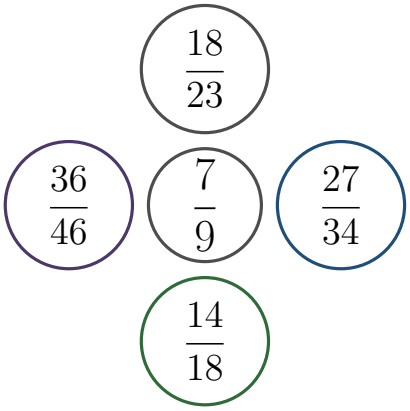
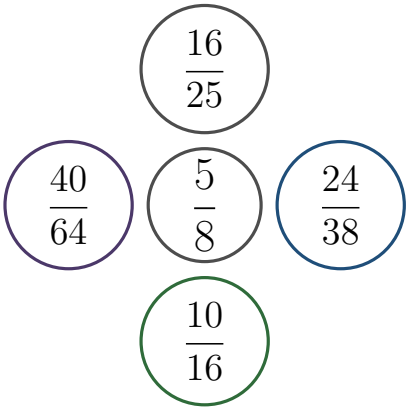
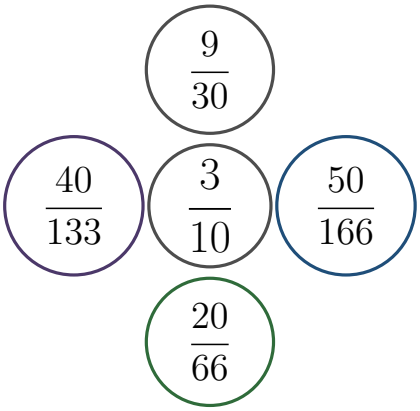
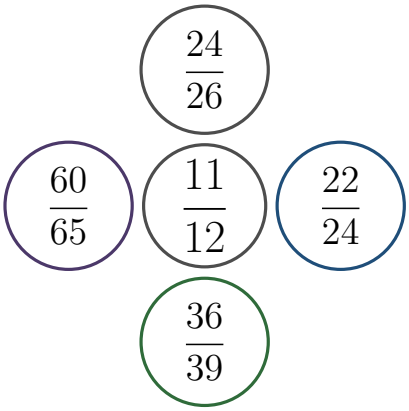


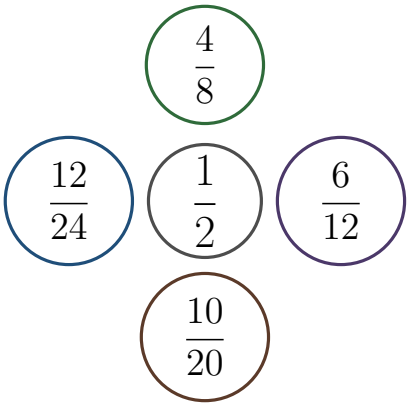



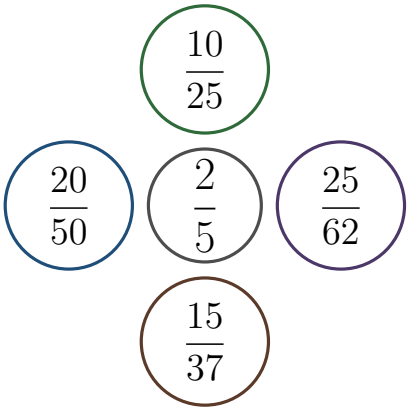



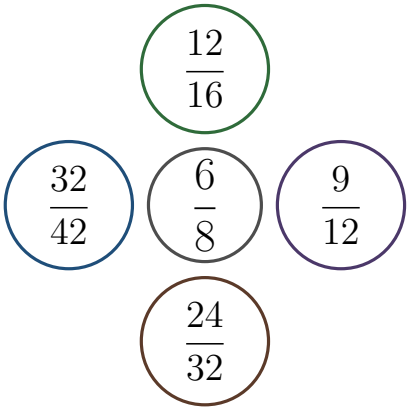



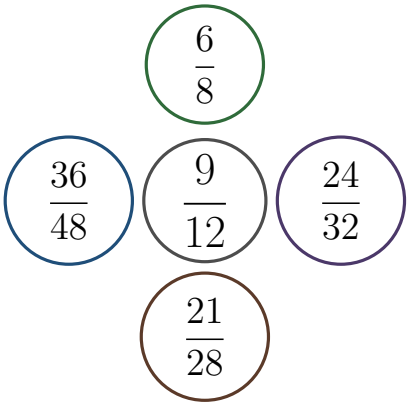



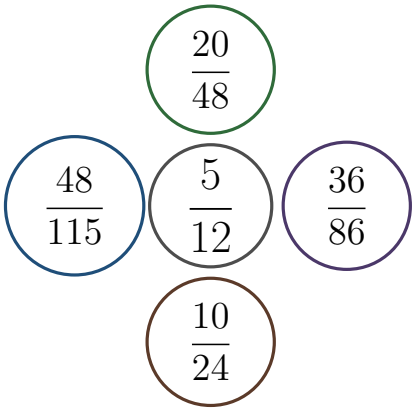
# Equivalent Fractions — More Practice (C)

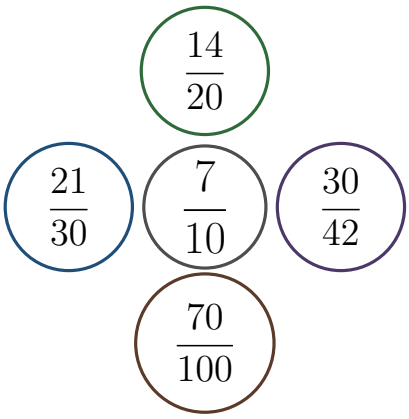


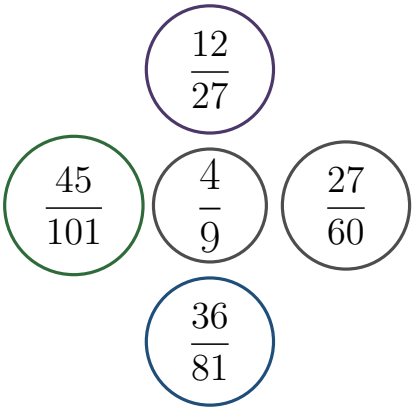



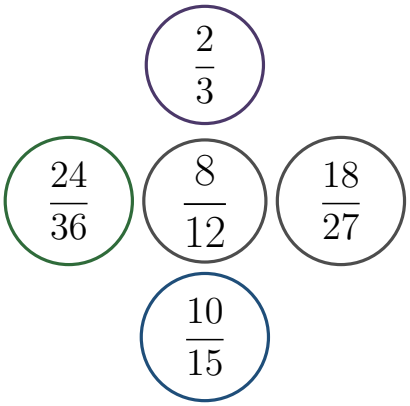



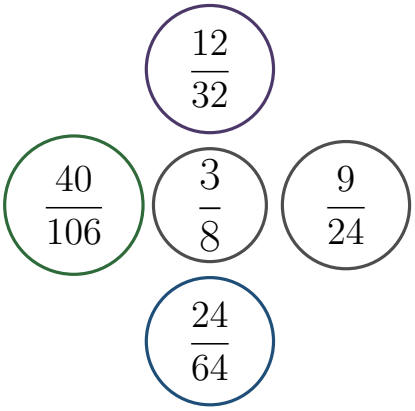



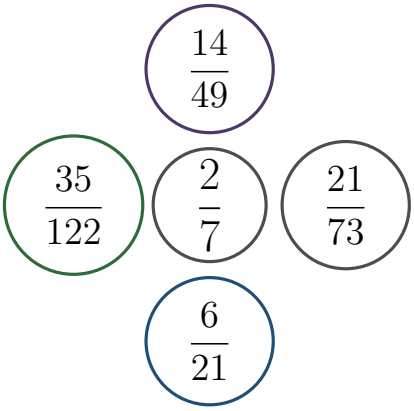



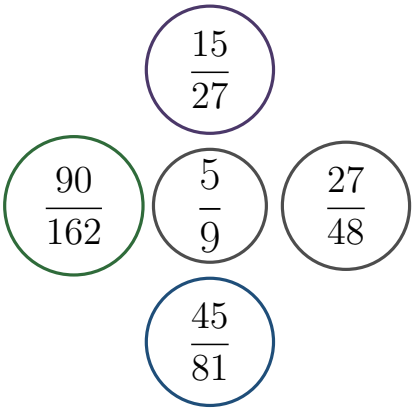
# Equivalent Fractions — More Practice (D)

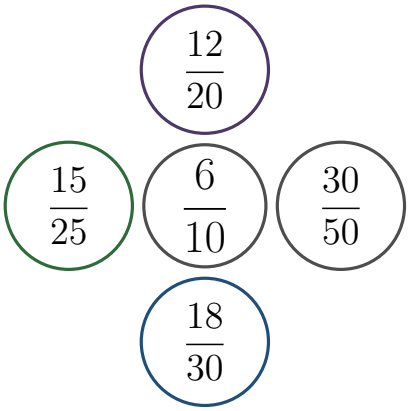


# Reducing Fractions to Simplest Form

**Example.** Write $\frac{6}{9}$ in simplest form. Factor top and bottom into primes and cancel the common factors:

$$\frac{6}{9} = \frac{2 \times \cancel{3}}{3 \times \cancel{3}} = \frac{2}{3}.$$

This is the same as dividing both numerator and denominator by 3 (the GCF).

Reduce each fraction to an equivalent fraction in simplest form.

$\frac{35}{40} = \frac{7}{8}$

$\frac{30}{48} = \frac{5}{8}$

$\frac{2}{4} = \frac{1}{2}$

$\frac{9}{54} = \frac{1}{6}$

$\frac{5}{20} = \frac{1}{4}$

$\frac{4}{32} = \frac{1}{8}$

$\frac{7}{42} = \frac{1}{6}$

$\frac{14}{16} = \frac{7}{8}$

$\frac{20}{32} = \frac{5}{8}$

$\frac{3}{12} = \frac{1}{4}$

$\frac{9}{24} = \frac{3}{8}$

$\frac{6}{9} = \frac{2}{3}$

$\frac{4}{24} = \frac{1}{6}$

$\frac{9}{18} = \frac{1}{2}$

$\frac{10}{30} = \frac{1}{3}$

$\frac{63}{72} = \frac{7}{8}$

# Reducing Fractions — More Practice

Reduce each fraction to an equivalent fraction in simplest form.

$\frac{28}{32} = \frac{7}{8}$

$\frac{10}{12} = \frac{5}{6}$

$\frac{18}{24} = \frac{3}{4}$

$\frac{12}{20} = \frac{3}{5}$

$\frac{8}{12} = \frac{2}{3}$

$\frac{27}{45} = \frac{3}{5}$

$\frac{50}{60} = \frac{5}{6}$

$\frac{32}{48} = \frac{2}{3}$

$\frac{45}{60} = \frac{3}{4}$

$\frac{49}{63} = \frac{7}{9}$

$\frac{7}{21} = \frac{1}{3}$

$\frac{10}{80} = \frac{1}{8}$

$\frac{16}{28} = \frac{4}{7}$

$\frac{21}{63} = \frac{1}{3}$

$\frac{24}{36} = \frac{2}{3}$

$\frac{42}{56} = \frac{3}{4}$

$\frac{22}{66} = \frac{1}{3}$

$\frac{18}{30} = \frac{3}{5}$

$\frac{12}{18} = \frac{2}{3}$

$\frac{15}{35} = \frac{3}{7}$